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Notice of Allowability	Application No.	Applicant(s)	
	09/745,948	NAGATANI ET AL.	
	Examiner	Art Unit	
	Lawrence B Williams	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 13 August 2004.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☒ The drawings filed on 22 December 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brian Myers on 20 September 2004.

The application has been amended as follows:

a.) In claim 4, replace the last paragraph of the claim with the following new paragraph;
“a means for stopping a distortion compensation coefficient updating operation or said distortion compensating operation so as to decide said total delay time again and reset decided total delay time in said transmission signal delay unit, when said difference is not less than a preset value.”

b.) In claim 5, replace the last paragraph with the following new paragraph;
“a means for stopping a distortion compensation coefficient updating operation or said distortion compensating operation so as to decide said total delay time again and reset said total delay time in said transmission signal delay unit, when said difference exceeds a certain threshold value.”

c.) In claim 14, line 4, delete the phrase “as the phase difference” and insert “an” between **at** and **interval**.

d.) In claim 15, line 9; add “an” between **at** and **interval**.

e.) In claim 15, line 12; add “an” between **at** and **interval**.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance: The instant application discloses a distortion compensating apparatus for compensating for a distortion of a transmission power amplifier. An exhaustive search of prior art records has failed to teach a distortion compensating apparatus comprising "a delay time decision unit for calculating a correlation between said input signal and said feedback signal while varying a phase difference between both signals, and deciding the total delay time caused in said transmission power amplifier and a feedback loop on the basis of the phase difference in which said correlation is the maximum" along with the remaining limitations of claims 1 and 2. Nor does the prior art teach a distortion compensating apparatus comprising "a correlator for calculating the correlation between said transmission signal and said feedback signal by sequentially changing the time difference between both signals at interval of said sampling period; a control unit for obtaining the amount of delay in said feedback signal delay unit and the time difference in which said correlation is the maximum, and determining the total delay time caused in said transmission power amplifier and a feedback loop on the basis of said amount of delay and said time difference" along with the remaining limitations of claim 5.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2634

CONCLUSION


3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams

lbw
September 20, 2004


STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800